C.   In vivo Screening

Compounds identified as potential lead compounds using the methods above are
screened using the mouse model of prostate cancer described in Example 2. Preferred
5   compounds are those that prevent or reduce prostate tumors in the mouse model.

All publications and patents mentioned in the above specification are herein
incorporated by reference. Various modifications and variations of the described method
and system of the invention will be apparent to those skilled in the art without departing
10   from the scope and spirit of the invention. Although the invention has been described in
connection with specific preferred embodiments, it should be understood that the
invention as claimed should not be unduly limited to such specific embodiments. Indeed,
various modifications of the described modes for carrying out the invention that are
obvious to those skilled in the relevant fields are intended to be within the scope of the
15   following claims.

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10  Asn Thr Gln Glu Val Ala Val Lys Glu Lys His Ala Arg Thr Cys Ile
            50              55              60

    Leu Gly Thr His His Glu Lys Gly Ala Gln Thr Phe Trp Ser Val Val
    65              70              75              80

15
    Asn Arg Leu Pro Leu Ser Ser Asn Ala Val Leu Cys Trp Lys Phe Cys
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    His Val Phe His Lys Leu Leu Arg Asp Gly His Pro Asn Val Leu Lys
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    Leu Leu Arg Thr Lys Met Glu Tyr His Thr Lys Asn Pro Arg Phe Pro
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30  Gly Asn Leu Gln Met Ser Asp Arg Gln Leu Asp Glu Ala Gly Glu Ser
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    Asp Val Asn Asn Phe Ser Gln Leu Thr Val Glu Met Phe Asp Tyr Leu
35              180             185             190

    Glu Cys Glu Leu Asn Leu Phe Gln Thr Val Phe Asn Ser Leu Asp Met
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    Gly His Arg Asp Arg Phe Met Glu Gln Phe Thr Lys Leu Lys Asp Leu
50              260             265             270

    Phe Tyr Arg Ser Ser Asn Leu Gln Tyr Phe Lys Arg Leu Ile Gln Ile
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78

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 5  Pro Asp Ser Glu Pro Val Leu Glu Lys Asp Asp Leu Met Asp Met Asp
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10  Ser Ser Phe Ser Ser Asp Pro Phe Asn Phe Asn Ser Gln Asn Gly Val
            355             360             365

    Asn Lys Asp Glu Lys Asp His Leu Ile Glu Arg Leu Tyr Arg Glu Ile
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15
    Ser Gly Leu Lys Ala Gln Leu Glu Asn Met Lys Thr Glu Ser Gln Arg
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    Val Val Leu Gln Leu Lys Gly His Val Ser Glu Leu Glu Ala Asp Leu
20              405             410                 415

    Ala Glu Gln Gln His Leu Arg Gln Gln Ala Ala Asp Asp Cys Glu Phe
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25  Leu Arg Ala Glu Leu Asp Glu Leu Arg Arg Gln Arg Glu Asp Thr Glu
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    Lys Ala Gln Arg Ser Leu Ser Glu Ile Glu Arg Lys Ala Gln Ala Asn
        450             455             460

30
    Glu Gln Arg Tyr Ser Lys Leu Lys Glu Lys Tyr Ser Glu Leu Val Gln
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    Asn His Ala Asp Leu Leu Arg Lys Asn Ala Glu Val Thr Lys Gln Val
35              485             490                 495

    Ser Met Ala Arg Gln Ala Gln Val Asp Leu Glu Arg Glu Lys Lys Glu
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40  Leu Glu Asp Ser Leu Glu Arg Ile Ser Asp Gln Gly Gln Arg Lys Thr
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    Gln Glu Gln Leu Glu Val Leu Glu Ser Leu Lys Gln Glu Leu Ala Thr
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45
    Ser Gln Arg Glu Leu Gln Val Leu Gln Gly Ser Leu Glu Thr Ser Ala
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    Gln Ser Glu Ala Asn Trp Ala Ala Glu Phe Ala Glu Leu Glu Lys Glu
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    Arg Asp Ser Leu Val Ser Gly Ala Ala His Arg Glu Glu Glu Leu Ser
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55  Ala Leu Arg Lys Glu Leu Gln Asp Thr Gln Leu Lys Leu Ala Ser Thr
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79

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        Gln Leu Glu Glu Pro Pro Leu Ile Ser Cys Ala Gly Ser Ala Asp His
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        Lys Ser Trp Ser Gln Tyr Leu Ala Cys Pro Glu Asp Ile Ser Gly Leu
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        Leu His Ser Ile Thr Leu Leu Ala His Leu Thr Ser Asp Ala Ile Ala
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  20    His Gly Ala Thr Thr Cys Leu Arg Ala Pro Pro Glu Pro Ala Asp Ser
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        Leu Thr Glu Ala Cys Lys Gln Tyr Gly Arg Glu Thr Leu Ala Tyr Leu
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        Met Arg Asn Cys Leu Ser Lys Ile Lys Ala Ile Gly Glu Glu Leu Leu
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        Pro Arg Gly Leu Asp Ile Lys Gln Glu Glu Leu Gly Asp Leu Val Asp
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        Lys Glu Met Ala Ala Thr Ser Ala Ala Ile Glu Thr Ala Thr Ala Arg
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        Ile Glu Glu Met Leu Ser Lys Ser Arg Ala Gly Asp Thr Gly Val Lys
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        Ala Ile Gln Val Leu Ile Val Ala Ser Lys Asp Leu Gln Arg Glu Ile
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        Val Glu Ser Gly Arg Gly Thr Ala Ser Pro Lys Glu Phe Tyr Ala Lys
            850             855             860

        Asn Ser Arg Trp Thr Glu Gly Leu Ile Ser Ala Ser Lys Ala Val Gly
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        Trp Gly Ala Thr Val Met Val Asp Ala Ala Asp Leu Val Val Gln Gly
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80

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        Ala Thr Ala Gly Val Val Ala Ser Thr Ile Ser Gly Lys Ser Gln Ile
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        Lys Arg Gln Glu Met Asp Ser Gln Val Arg Val Leu Glu Leu Glu Asn
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        Ala Ser  Pro Pro Thr Leu Gln  Glu Val Val Thr Glu  Lys Glu Ser
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  25    Gln Thr  Asn Thr Pro Tyr Val  Ser Val Asn Pro Cys  Tyr Leu Ser
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        Arg Val  Cys Tyr Phe Pro Ser  His Arg Pro Asn Pro  Trp Ser Pro
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        Arg Gly  Ser His Thr Thr Ala  Ile Thr Gln Cys Arg  Gly His Ala
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  35    His Phe  Gln Arg Leu Pro Pro  Arg His Pro Phe Cys  Leu Asp Pro
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        Trp Ile  Ser Thr Ala Ser Tyr  Gly Gly Trp Leu Gly  Phe Leu Val
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        Arg Ala  His Pro Trp Gly Val  Ser Arg Ala Pro Gln  Leu Trp Leu
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        Gln Arg  Trp Cys Cys Pro Gly  Leu Ser Val Leu His  Leu Arg Leu
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        His Thr  Asp Gln Val Leu Ala  His Pro Val His Ala  Pro Gly Ser
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        Gly Gly  Ala Ala Glu Gln Leu  Ser Ser Lys Ser Arg  Arg Arg Val
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81

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cccggcggaa agcctctgtc cgcctttaca agggagaaga caacagaaag agggacaaga   3120

gggttcacac agcccagttc ccgtgacgag gctcaaaaac ttgatcacat gcttgaatgg   3180

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84

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Asn Ser Leu Asp Met Ser Arg Ser Val Ser Val Thr Ala Ala Gly Gln
            20                  25                  30

Cys Arg Leu Ala Pro Leu Ile Gln Val Ile Leu Asp Cys Ser His Leu
        35                  40                  45

Tyr Asp Tyr Thr Val Lys Leu Leu Phe Lys Leu His Ser Cys Leu Pro
    50                  55                  60

Ala Asp Thr Leu Gln Gly His Arg Asp Arg Phe Met Glu Gln Phe Thr
65                  70                  75                  80

Lys Leu Lys Asp Leu Phe Tyr Arg Ser Ser Asn Leu Gln Tyr Phe Lys
                85                  90                  95

Arg Leu Ile Gln Ile Pro Gln Leu Pro Glu Asn Pro Pro Asn Phe Leu
                100                 105                 110

Arg Ala Ser Ala Leu Ser Glu His Ile Ser Pro Val Val Val Ile Pro
            115                 120                 125

Ala Glu Ala Ser Ser Pro Asp Ser Glu Pro Val Leu Glu Lys Asp Asp
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85

Leu Met Asp Met Asp Ala Ser Gln Gln Asn Leu Phe Asp Asn Lys Phe
145   150   155   160

Asp Asp Ile Phe Gly Ser Ser Phe Ser Ser Asp Pro Phe Asn Phe Asn
                    165   170   175

Ser Gln Asn Gly Val Asn Lys Asp Glu Lys Asp His Leu Ile Glu Arg
                    180   185   190

Leu Tyr Arg Glu Ile Ser Gly Leu Lys Ala Gln Leu Glu Asn Met Lys
            195   200   205

Thr Glu Ser Gln Arg Val Val Leu Gln Leu Lys Gly His Val Ser Glu
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Leu Glu Ala Asp Leu Ala Glu Gln Gln His Leu Arg Gln Gln Ala Ala
225   230   235   240

Asp Asp Cys Glu Phe Leu Arg Ala Glu Leu Asp Glu Leu Arg Arg Gln
                    245   250   255

Arg Glu Asp Thr Glu Lys Ala Gln Arg Ser Leu Ser Glu Ile Glu Arg
            260   265   270

Lys Ala Gln Ala Asn Glu Gln Arg Tyr Ser Lys Leu Lys Glu Lys Tyr
            275   280   285

Ser Glu Leu Val Gln Asn His Ala Asp Leu Leu Arg Lys Asn Ala Glu
        290   295   300

Val Thr Lys Gln Val Ser Met Ala Arg Gln Ala Gln Val Asp Leu Glu
305   310   315   320

Arg Glu Lys Lys Glu Leu Glu Asp Ser Leu Glu Arg Ile Ser Asp Gln
                    325   330   335

Gly Gln Arg Lys Thr Gln Glu Gln Leu Glu Val Leu Glu Ser Leu Lys
            340   345   350

Gln Glu Leu Ala Thr Ser Gln Arg Glu Leu Gln Val Leu Gln Gly Ser
            355   360   365

Leu Glu Thr Ser Ala Gln Ser Glu Ala Asn Trp Ala Ala Glu Phe Ala
        370   375   380

Glu Leu Glu Lys Glu Arg Asp Ser Leu Val Ser Gly Ala Ala His Arg
385   390   395   400

Glu Glu Glu Leu Ser Ala Leu Arg Lys Glu Leu Gln Asp Thr Gln Leu
                    405   410   415

Lys Leu Ala Ser Thr Glu Glu Ser Met Cys Gln Leu Ala Lys Asp Gln
            420   425   430

Arg Lys Met Leu Leu Val Gly Ser Arg Lys Ala Ala Glu Gln Val Ile

86

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                435                   440                   445

      Gln Asp Ala Leu Asn Gln Leu Glu Glu Pro Pro Leu Ile Ser Cys Ala
          450                   455                   460
  5
      Gly Ser Ala Asp His Leu Leu Ser Thr Val Thr Ser Ile Ser Ser Cys
      465                   470                   475                   480

      Ile Glu Gln Leu Glu Lys Ser Trp Ser Gln Tyr Leu Ala Cys Pro Glu
 10                       485                   490                   495

      Asp Ile Ser Gly Leu Leu His Ser Ile Thr Leu Leu Ala His Leu Thr
                      500                   505                   510

 15   Ser Asp Ala Ile Ala His Gly Ala Thr Thr Cys Leu Arg Ala Pro Pro
                      515                   520                   525

      Glu Pro Ala Asp Ser Leu Thr Glu Ala Cys Lys Gln Tyr Gly Arg Glu
          530                   535                   540
 20
      Thr Leu Ala Tyr Leu Ala Ser Leu Glu Glu Glu Gly Ser Leu Glu Asn
      545                   550                   555                   560

      Ala Asp Ser Thr Ala Met Arg Asn Cys Leu Ser Lys Ile Lys Ala Ile
 25                   565                   570                   575

      Gly Glu Glu Leu Leu Pro Arg Gly Leu Asp Ile Lys Gln Glu Glu Leu
                      580                   585                   590

 30   Gly Asp Leu Val Asp Lys Glu Met Ala Ala Thr Ser Ala Ala Ile Glu
                      595                   600                   605

      Thr Ala Thr Ala Arg Ile Glu Glu Met Leu Ser Lys Ser Arg Ala Gly
          610                   615                   620
 35
      Asp Thr Gly Val Lys Leu Glu Val Asn Glu Arg Ile Leu Gly Cys Cys
      625                   630                   635                   640

      Thr Ser Leu Met Gln Ala Ile Gln Val Leu Ile Val Ala Ser Lys Asp
 40                   645                   650                   655

      Leu Gln Arg Glu Ile Val Glu Ser Gly Arg Gly Thr Ala Ser Pro Lys
                      660                   665                   670

 45   Glu Phe Tyr Ala Lys Asn Ser Arg Trp Thr Glu Gly Leu Ile Ser Ala
                      675                   680                   685

      Ser Lys Ala Val Gly Trp Gly Ala Thr Val Met Val Asp Ala Ala Asp
          690                   695                   700
 50
      Leu Val Val Gln Gly Arg Gly Lys Phe Glu Glu Leu Met Val Cys Ser
      705                   710                   715                   720

      His Glu Ile Ala Ala Ser Thr Ala Gln Leu Val Ala Ala Ser Lys Val
 55                   725                   730                   735

      Lys Ala Asp Lys Asp Ser Pro Asn Leu Ala Gln Leu Gln Gln Ala Ser
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87

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              740                    745                      750
     Arg Gly Val Asn Gln Ala Thr Ala Gly Val Val Ala Ser Thr Ile Ser
  5      755                  760                  765

     Gly Lys Ser Gln Ile Glu Glu Thr Asp Asn Met Asp Phe Ser Ser Met
         770              775              780

     Thr Leu Thr Gln Ile Lys Arg Gln Glu Met Asp Ser Gln Val Arg Val
 10  785              790              795              800

     Leu Glu Leu Glu Asn Glu Leu Gln Lys Glu Arg Gln Lys Leu Gly Glu
                 805              810              815

 15  Leu Arg Lys Lys His Tyr Glu Leu Ala Gly Val Ala Glu Gly Trp Glu
             820              825              830

     Glu Gly Thr Glu Ala Ser Pro Pro Thr Leu Gln Glu Val Val Thr Glu
             835              840              845

 20
     Lys Glu Ser Gln Thr Asn Thr Pro Tyr Val Ser Val Asn Pro Cys Tyr
         850              855              860

     Leu Ser Arg Val Cys Tyr Phe Pro Ser His Arg Pro Asn Pro Trp Ser
 25  865              870              875              880

     Pro Arg Gly Ser His Thr Thr Ala Ile Thr Gln Cys Arg Gly His Ala
                 885              890              895

 30  His Phe Gln Arg Leu Pro Pro Arg His Pro Phe Cys Leu Asp Pro Trp
             900              905              910

     Ile Ser Thr Ala Ser Tyr Gly Gly Trp Leu Gly Phe Leu Val Leu Phe
             915              920              925

 35
     Phe Phe Phe Lys Phe His Ser His Ser Gln Leu Ser Gln Arg Ala His
         930              935              940

     Pro Trp Gly Val Ser Arg Ala Pro Gln Leu Trp Leu Gln Arg Trp Cys
 40  945              950              955              960

     Cys Pro Gly Leu Ser Val Leu His Leu Arg Leu His Thr Asp Gln Val
                 965              970              975

 45  Leu Ala His Pro Val His Ala Pro Gly Ser Gly Gly Ala Ala Glu Gln
                 980              985              990

     Leu Ser Ser Lys Ser Arg Arg Arg  Val Ser Ala Phe Pro  Ser Ser Ile
         995              1000              1005

 50
     Pro Ala  Glu Ser Leu Cys Pro  Pro Leu Gln Gly Arg  Arg Gln Gln
         1010              1015              1020

     Lys Glu  Gly Gln Glu Gly Ser  His Ser Pro Val Pro  Val Thr Arg
 55      1025              1030              1035

     Leu Lys  Asn Leu Ile Thr Cys  Leu Asn Gly Ala Gly  Glu Ile Asn
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88

5

Asn Thr Thr Ser Leu Pro Glu Thr Val Arg Glu Trp Ser Leu Ser
    1055   1060   1065

Ser Gly Pro Ser Pro Leu Ala Gln Arg Arg Ser Val Gly Val Ile
    1070   1075   1080

10

Pro Asn Ser Phe Leu Gln Thr Ser Ala Leu Ala Ser Ser Ile Gly
    1085   1090   1095

Arg Ser Phe His Leu Leu Arg Asn Gln Thr Arg Lys Ile Arg Cys
    1100   1105   1110

15

Asn Cys Ser His Gln Gly Arg Thr Leu Tyr Leu Val Cys Tyr Pro
    1115   1120   1125

Tyr Leu Leu Leu Thr Ser Leu Lys Gln Gln Gln Pro Thr Lys Arg
    1130   1135   1140

20

Cys Leu Glu Gln Ser Glu Leu Gln Val Leu Gln Ser Ser Ser Phe
    1145   1150   1155

Cys Pro Ala Thr Ser Ala Phe Lys Asn Gln Lys Lys Gly Gln Gly
    1160   1165   1170

25

Ala Gly Leu Leu Leu Thr Trp Ile Pro Lys Gln Gly Asp His Leu
    1175   1180   1185

30

Glu Leu Leu Gly Gln Arg Lys Glu Arg Thr Glu Pro Ala Ala Pro
    1190   1195   1200

Thr Pro Phe Ser His Met Pro Gln Ala Leu Ala Ala Leu Trp Thr
    1205   1210   1215

35

Gly Gly Gln Arg Ala His Glu Gln Leu Ala Arg Asp Gly Gln Pro
    1220   1225   1230

Asn Ser Thr Phe Pro Leu Leu Asp Gly Pro Gln His Leu Ser Asp
    1235   1240   1245

40

Leu Leu Ile Leu Gly Lys Gln Arg Leu Pro Ser Leu Ser Ile Ala
    1250   1255   1260

45

Thr His Trp Trp Pro Ser Ser Thr Ser Glu Phe Leu Gln Pro Gly
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Arg Pro Leu Glu His
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cgttagcgcc ggatccccgc gggtagggcg gggcgggcgg cgccgtgggg atcccggggc     180

agccgagggc ccctgactcg gctcctcgcg gcgacatgga tcggatggcc agctccatga     240

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aggcggcgga gcgcgagagc ttcgagcgga ctcaggttca gactgtcagc atcaataagg     360

ccattaatac gcaggaaagt ggctgtaaag gaaaaacatg ccag                      404
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